

# Earth System Science – the Big Picture 22nd Annual Gregory Lecture with Regents Professor Steven W. Running

The landmark Limits to Growth book in 1972 gave a first detailed warning of the potential for humanity to overrun the planet. In the last forty years, science has now provided an astonishing array of satellite observations, global datasets, international observational networks, comprehensive computer models of climate and the carbon cycle. A new generation of Earth Systems models are now trying to put human activity and economic factors more explicitly into dynamic models. An updated global change framing of Planetary Boundaries has been developed. We have now written five IPCC reports. Global change science has had a tremendously successful last few decades. When will global change policy catch up?



Steven W. Running received his Ph.D. in Forest Ecology from Colorado State University and has been with the University of Montana, Missoula since 1979, where he is a University Regents Professor of Ecology. His primary research interest is the development of global and regional ecosystem biogeochemical models integrating remote

sensing with bioclimatology and terrestrial ecology. He is the Land Team Leader for the NASA Earth Observing System, Moderate Resolution Imaging Spectroradiometer, and is responsible for the EOS global terrestrial net primary production and evapotranspiration datasets. He has published more than 280 scientific articles and two books. He is a co-Lead Chapter Author for the 2014 U.S. National Climate Assessment. He currently Chairs the NASA Earth Science Subcommittee, is a member of the NASA Science Advisory Council, and the NOAA Climate Working Group. Dr. Running was a chapter Lead Author for the 4th Assessment of the Intergovernmental Panel on Climate Change which shared the Nobel Peace Prize in 2007. Dr. Running is an elected Fellow of the American Geophysical Union and is designated a Highly Cited Researcher by the Institute for Scientific Information. In the popular press, his essay in 2007, "The 5 Stages of Climate Grief" has been widely quoted.

**Geography and Environment,  
University of Southampton  
cordially invites you and a guest to  
the 22nd Annual Gregory Lecture:**

**‘Earth System Science  
– the Big Picture.’**

**Wednesday 12 February 2014**

Lecture Theatre EEE (room 1015),  
Building 32, Highfield Campus,  
University of Southampton

Refreshments from 17:30, lecture  
commences at 18:00 followed by  
post lecture drinks reception.

**For more information and to  
register for this event  
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